National Advisory Council for
Environmental Policy and Technology

March 29, 2006

Administrator Stephen L. Johnson
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Submission of NACEPT Comments on Draft 2006-2011 EPA Strategic Plan Architecture

Dear Administrator Johnson:

On behalf of the National Advisory Council for Environmental Policy and Technology, I am pleased to forward to you our comments on EPA's Draft 2006-2011 Strategic Plan Architecture. We hope these comments are helpful to you and EPA as you chart the best course for EPA to achieve its mission.

We commend EPA for undertaking a formal strategic planning process that provides goals and objectives to assess EPA's many activities and initiatives, and that so openly includes public participation. Enclosed are both general and specific comments, some of which are similar to comments we offered for EPA's 2003-2008 Strategic Plan.

Our comments include:

- EPA's four major strategic documents -- the budget, the strategic plan, the report on the environment, and the annual performance and accountability report -- are complementary in purpose and so should be organized consistently and with reference to each other, which would allow readers to more easily follow issues and track progress.

- Elements of other EPA strategic reports offer opportunities for strengthening the architecture, including adding:
    - The legal provision for the objective, sub-objective, or target
    - Prior performance and baseline
    - Roles and responsibilities -- and an assessment of capacities and resources -- of EPA, partners (including other federal agencies), and the target audience for implementation

- Principal tools for implementation
- A strategy to effectively address identified gaps and needs
- Performance measures, indicators, milestones, and timeframes for achievement.

- The scope of the architecture's goals and objectives is very broad, and the authors understandably are many. The preparers of the final document should seek to harmonize the different sections' targets and formats, which not only would help with readability but also would promote coordination across offices and programs.

- EPA's significant work on futures and emerging issues and technologies should be integrated into the architecture as critical elements in assisting EPA to prepare for new environmental concerns and opportunities.

- Recognizing EPA's budget and resource limitations, the architecture should in some way prioritize the various objectives and sub-objectives according to their effectiveness in achieving EPA's mission.

On behalf of the Council, we appreciate the opportunity to offer these comments and look forward to reviewing the Draft Strategic Plan when it is released.

Sincerely,

John L. Howard, Jr.
NACEPT Chair

Attachment

cc: Marcus Peacock, Deputy Administrator
Charles Ingebretson, Chief of Staff
Ray Spears, Deputy Chief of Staff
Lyons Gray, Chief Financial Officer
Kathy Sedlak O'Brien, Director, Office of Planning, Analysis, and Accountability/OCFO
Rafael DeLeon, Director, Office of Cooperative Environmental Management
Sonia Altieri, NACEPT Designated Federal Officer

NATIONAL ADVISORY COUNCIL
FOR ENVIRONMENTAL POLICY AND TECHNOLOGY

Comments on U.S. Environmental Protection Agency's
Draft 2006-2011 Strategic Plan Architecture

March 29, 2006

GENERAL COMMENTS

In its comments on EPA's 2003-2008 Strategic Plan, NACEPT encouraged EPA to link the Strategic Plan with the Report on the Environment, in both formatting and timing, to facilitate the establishment of goals and objectives, and to provide a progress report on the Agency's accomplishments. We encourage EPA to also enhance the linkages between those two documents, its budget, and its annual Performance and Accountability Report. These four documents should be structured so that each serves a specific function, yet complements the other three—the Strategic Plan establishes goals and objectives, and means and strategies for achieving them (inputs), the budget establishes fiscal responsibility, the annual Performance and Accountability Report details the Agency's activities and progress towards the stated goals and objectives (outputs and outcomes), and the Report on the Environment discusses the effects of the Agency's actions on the environment (impacts). As these documents are complementary, they should be consistently organized in a manner that allows the reader to easily follow an issue or topic across all four. To enhance clarity for the reader, EPA should also include a discussion of the relationships between these documents in the introduction to each.

The Strategic Plan Architecture is the "skeleton" for EPA's Strategic Plan and is structured around five Goals (Clean Air and Global Climate Change, Clean and Safe Water, Land Preservation and Restoration, Healthy Communities and Ecosystems, and Compliance and Environmental Stewardship). There are substantial linkages across Goals 1, 2 and 3, and more importantly, the means of achieving those objectives are contained in Goals 4 and 5. In a number of instances, objectives and sub-objectives under Goals 4 and 5 address issues already addressed under Goals 1, 2 and 3, but with substantively different quantitative targets. We recognize that this is an artifact of the process through which the Strategic Plan Architecture is assembled, in which individual offices across the Agency submit their own objectives independent of other offices and

EPA's partners. However, this illustrates the need for thoroughly coordinated objectives, priority-setting, and activities across those offices and EPA's partners.

NACEPT again recommends that EPA incorporate a section in the Strategic Plan on the roles of other federal agencies that are crucial to successful implementation of the Goals. These federal partners are key participants in the evaluation and management of the nation's natural and environmental resources, including conformance with the National Environmental Policy Act. EPA should also work closely with its federal partners to identify their most environmentally significant initiatives, with a goal of leveraging cross-agency activities for the greatest public benefit (i.e., energy-environment nexus).

Our review of the 2003-2008 Strategic Plan revealed that the means and strategies outlined by the Agency in pursuit of the Goals often lacked detail regarding the roles and responsibilities of EPA's partners in implementing the Strategic Plan, as well as the burdens placed on the regulated community. As EPA moves forward in developing the Strategic Plan, its usefulness will be dependent on a number of critical elements for each objective and sub-objective. From a planning perspective, the following elements should be discussed for each objective.

- In order to provide a sound basis upon which the subsequent Strategic Plan can be based, the Strategic Plan Architecture should include:
    - Prior performance relative to the sub-objective or strategic target (if addressed in previous Strategic Plans),
    - Roles and responsibilities of EPA, its partners and the target audience for implementing the objective or target,
    - An assessment of the capacities and resources of EPA, its partners and the target audience to implement the strategy, including a discussion of capacity gaps and resources needs of all parties,
    - A strategy to effectively address identified gaps and needs, and
    - Milestones for measuring progress.

- Where measurable sub-objectives (targets) are indicated, sub-objectives should be expressed in a consistent manner throughout the Strategic Goal Architecture and include the following elements:
    - The regulatory authority for the objective, sub-objective or target,
    - Timeframe for achieving the sub-objective,
    - Performance measure(s) or indicator(s),
    - Baseline from which progress will be measured,
    - Target audience for EPA action (e.g., regulated sector, general public)
    - EPA partners (e.g., tribes, states, local governments) who will participate in the implementation strategy, and
    - Principal tools (e.g., grants, compliance assistance, incentives, enforcement) that will be employed in the implementation strategy.

A substantial number of objectives and sub-objectives in the Strategic Plan Architecture were incomplete, and were therefore not ripe for comment. Many of them included references to future consultations with stakeholders for the development of appropriate metrics. While we recognize that EPA has scheduled release of the full Strategic Plan in May 2006, we recommend that the Agency complete as many stakeholder consultations as possible prior to the Strategic Plan release, and to incorporate the outcomes of those consultations into the forthcoming Strategic Plan.

Recognizing that the Agency has many responsibilities, there needs to be a process to incorporate futures into its strategic planning effort, to understand, assess and access emerging technologies that can facilitate the Agency's mission and avoid environmental surprises. There are futures activities occurring throughout the Agency, such as nanotechnology and water infrastructure sustainability, but these do not systematically appear in the Strategic plan Architecture.

Neither the Strategic Plan Architecture nor the Strategic Plan discusses prioritization of the Agency's various objectives and sub-objectives. While we appreciate the difficulty of such an endeavor, in the face of finite funding and resources, it would be worthwhile for EPA to assess its objectives and sub-objectives, and prioritize its activities by their greatest value to the Agency's mission and to the public.

Finally, as with the 2003-2008 Strategic Plan, the current Strategic Plan Architecture reads as if it was prepared by numerous authors. EPA should assign responsibility for compiling and editing the draft Strategic Plan Architecture and the Strategic Plan to one office, which could weave all of the disparate pieces into one cohesive and logically organized document.

Detailed Comments on Draft 2006-2011 EPA Strategic Plan Architecture
Public Review Draft February 14, 2006

EPA's Mission: To Protect Human Health and the Environment

Goal 1: Clean Air and Global Climate Change.

Protect and improve the air so it is healthy to breathe and risks to human health and the environment are reduced. Reduce greenhouse gas intensity by enhancing partnerships with businesses and other sectors.

Objective 1.1: Healthier Outdoor Air. Through 2011, working with partners, protect human health and the environment by attaining and maintaining health-based air quality standards and reducing the risk from toxic air pollutants.

NACEPT Comments
Sub-objective 1.1.1 references working with partners. It is important that roles and responsibilities be identified, and resources and capabilities of partners be assessed, to ensure that the objectives can reasonably be achieved. This issue applies wherever partners' activities are relied upon to achieve goals, objectives and targets.

Sub-objective 1.1.1: Ozone and PM $_{2.5}$. By 2015, working with partners, improve air quality for ozone and $PM_{2.5}$ as follows:

Strategic Targets:

• By 2015, reduce the population-weighted ambient concentration of ozone in all monitored counties by 14% from the 2003 baseline.

• By 2015, reduce the population-weighted ambient concentration of $PM_{2.5}$ in all monitored counties by 6% from the 2003 baseline.

NACEPT Comments
Strategic targets for ozone and PM2.5 reference percent reductions of 14% and 6% respectively from 2003 baselines by 2015 in monitored counties. Does the monitoring network (counties) sufficiently cover all areas where ozone and PM2.5 have potential impacts? Are there any objectives to identify and add impacted areas to the network? Are goals of approximately 1% and ½% per year ambitious? Previous (2003) Strategic Plan addressed these contaminants in terms of population in unhealthy areas whose air had improved to healthy. New targets do not distinguish between further progress in already healthy areas vs. needed progress in unhealthy areas.

Targets need to be consistent with regulations. The Clean Air Act requires ozone & PM2.5 attainment, not continual improvement in all monitored counties, as the first two targets in 1.1.1 propose.

• By 2011, improve air quality across states covered by Clean Air Interstate Rule (CAIR) to levels where 92 of the 108 areas that did not meet the standards for 8-hour ozone (as of April 2005) achieve these health-based national standards.

• By 2011, improve air quality across states covered by CAIR to levels where 17 of the 36 areas that did not meet the standards for $PM_{2.5}$ (as of April 2005) achieve these health-based national standards.

NACEPT Comments
CAIR target for ozone is 85% compliance by 2011, while CAIR target for PM2.5 is 47%. Need to explain rationale for widely divergent targets.

• By 2011, reduce annual SO_2 emissions from electric power generation sources by 4.3 million tons below 2003 levels across states covered by the CAIR.

• By 2011, reduce annual emissions of nitrogen oxides (NO_x) from electric power generation sources by 1.7 million tons below 2003 levels across states covered by CAIR.

NACEPT Comments
CAIR targets for SO2 and NOx are expressed as tons reduced from 2003 baseline. It would be useful to identify the 2003 baseline and what the percent change is, as well to show how ambitious these targets are. (See NOx, VOC and PM targets for mobile sources.)

• By 2011, reduce annual emissions of nitrogen oxides from mobile sources by 3.7 million tons from the 2000 level of 11.8 million tons.

• By 2011, reduce annual emissions of volatile organic compounds from mobile sources by 1.9 million tons from the 2000 level of 7.7 million tons.

• By 2011, reduce annual emissions of fine particles from mobile sources by 134,700 tons from the 2000 level of 510,550 tons.

• By 2011, through the National Clean Diesel Initiative, reduce emissions from the approximately 11 million engines in the existing fleet by 20,000 tons of fine particles since the year 2000.

• By 2011, through the National Clean Diesel Initiative, reduce emissions from the approximately 11 million engines in the existing fleet by nearly 300,000 tons of nitrogen oxides since the year 2000.

NACEPT Comments
National Clean Diesel Initiative PM and NOx targets are expressed as cumulative goals for the entire period 2000 to 2011. There are no references to baselines or cumulative reductions attained 2000 to 2006. These targets would be more meaningful as annual rather than cumulative.

• By 2011, the number of tribes with the expertise and capability to implement the Clean Air Act in Indian country (as demonstrated by successful delegation of CAA authority under the Tribal Authority Rule) will increase from the 2005 baseline of 30 to at least 50.

• By 2011, air quality assessments in Indian country, such as air quality and deposition monitoring, emissions inventories, and toxics assessments, will be tribally-driven and reflect tribal priorities and needs. At least three tribes will complete assessments each year between 2007 and 2011, and at least two new tribes will undertake new assessments each year between 2007 and 2011.

Sub-objective 1.1.2: Air Toxics. By 2011, working with partners, reduce air toxics emissions and implement area-specific approaches to reduce the risk to public health and the environment from toxic air pollutants, as follows:

Strategic Targets:

• By 2010, reduce the toxicity-weighted risk for cancer by 4% from the 1993 level of 23%.

NACEPT Comments
Have we made any progress since 1993? What is the level of improvement as of 2004? How do we assess progress, since what we know about the health risks from toxics keeps growing? Given that the science of toxic air pollution is evolving, shouldn't the baseline change as well?

• By 2010, reduce the toxicity-weighted risk for non-cancer by 1 cumulative percent from the 1993 level of 56%.

NACEPT Comments
What does this target mean? That EPA has set a goal of reducing non-cancer risk from 56% to 55% over a 17-year period? That, by 2010, "only" 55% of the population will suffer from "non-cancer"? Should the word "effects" be inserted between "non-cancer" and "by"? This needs to be clarified.

• By 2011, through the Clean Air Mercury Rule, reduce mercury emissions from electric generating units by 10 tons from the 2000 level of 48 tons.

NACEPT Comments
This is a well-written target and should be used as a model for other targets. It includes the "audience" or "impact universe" (electric generating units), what the agency hopes to achieve (10 ton reduction in mercury emissions), an appropriate baseline (2000 level of 48 tons), and how the objective will be achieved (Clean Air Mercury Rule).

• By 2011, through federal standards, reduce air toxics emissions from mobile sources by 1.4 million tons from the 1996 level of 2.7 million tons.

NACEPT Comments
The 1996 baseline is based on the last time EPA developed a standard. But why are air toxics from mobile sources under a different objective from other pollution from mobile sources?

Sub-objective 1.1.3: Chronically-Acidic Water Bodies. By 2011, reduce the number of chronically-acidic water bodies in acid-sensitive regions by 2% from 1984 levels.

NACEPT Comments
In 27 years we are able to achieve a reduction of only 2%? Why so modest? What is the basis for this timeframe?

Strategic Targets:

• By 2011, reduce national annual emissions of sulfur dioxide (SO_2) from utility electrical power generation sources by approximately 8.45 million tons from the 1980 level of 17.4 million tons, achieving and maintaining the Acid Rain statutory SO_2 emissions cap of 8.95 million tons.

NACEPT Comments
Attaining the statutory cap is a desirable target, but no information is provided as to where current emission levels are today, so it's impossible to assess its appropriateness.

• By 2011, reduce total annual average sulfur deposition and mean ambient sulfate concentration by 30% from 1990 monitored levels.

NACEPT Comments
How do we assess this target given the number of water bodies in the US and the fact that they vary so significantly in terms of acidity? Why does EPA refer to a "total" annual average? Does EPA mean "nationwide" average? How does this target relate to the overall 2% goal?

• By 2011, reduce total annual average nitrogen deposition and mean total ambient nitrate concentration by 15% from 1990 monitored levels.

NACEPT Comments
See previous comment regarding sulfur deposition target.

Objective 1.2: Healthier Indoor Air. Through 2012, working with partners, reduce human health risks by reducing exposure to indoor air contaminants through the promotion of voluntary actions by the public.

Sub-objective 1.2.1: Radon. By 2012, the number of future premature lung cancer deaths prevented annually through lowered radon exposure will increase to 1,250 from the 1997 baseline of 285 future premature lung cancer deaths prevented.

NACEPT Comments
Given that lung cancer has the highest mortality rate (and number) and arises from a number of factors, is epidemiology sufficiently robust to be able to measure this objective? There is no baseline as to the number of annual lung cancer deaths to assess how ambitious this objective is.

Sub-objective 1.2.2: Asthma. By 2012, the number of people taking all essential actions to reduce exposure to indoor environmental asthma triggers will increase to 6.5 million from the 2003 baseline of 3 million. EPA will place special emphasis on children and other disproportionately impacted populations.

NACEPT Comments
This objective relies entirely on behavioral changes in the non-regulated community. What measurable indices will be used to assess the number of respondents? What mechanisms does the Agency contemplate to compel consumer compliance?

Sub-objective 1.2.3: Schools. By 2012, the number of schools implementing an effective indoor air quality management plan will increase to 40,000 from the 2002 baseline of 25,000.

NACEPT Comments
Whether this is an ambitious objective depends on the number of schools in the target universe.

Sub-objective 1.2.4: ETS. By 2012, the percentage of children six and under regularly exposed to environmental tobacco smoke in the home will be reduced to X% (8-10%) from a 1998 baseline of 20%, and the disparity of exposure between low-income children and the general population will be reduced.

NACEPT Comments
This objective relies entirely on behavioral changes in the non-regulated community. What measurable indices will be used to assess conformance? What mechanisms does the Agency contemplate to compel consumer conformance?

Objective 1.3: Protect the Ozone Layer. By 2011, through worldwide action, ozone concentrations in the stratosphere will have stopped declining and slowly begun the process of recovery, and overexposure to ultraviolet radiation, particularly among susceptible subpopulations, such as children, will be reduced. Specifically:

Sub-objective 1.3.1: Stratospheric Chlorine Concentrations. By 2011, total equivalent stratospheric chlorine will have reached its peak, and begun its gradual decline to a value less than 3.4 parts per billion of air by volume.

Strategic Targets:

• By 2011, 65% of all hydrochlorofluorocarbon (HCFC) production and import will be phased out, further accelerating the recovery of the stratospheric ozone layer – with further reduction steps in 2015 and 2020, concluding with complete elimination of Class II substances in 2030.

• Through 2011, continue the transition away from ozone-depleting compounds in a way that reduces overall risks to human health and the environment by acting on 100% of petitions for substitutes within 90 days of receipt.

Sub-objective 1.3.2: SunWise. By 2011, the number of schools registered with the SunWise program will increase to 20,000 from X in year 20XX, thereby reducing the risks of overexposure to UV radiation through education of children in grades K-8.

NACEPT Comments

What is the baseline of total schools in the target universe? Since reduced exposure will be achieved by behavior change, how will the number of children who actually change behavior be assessed?

Objective 1.4: Radiation. Through 2011, working with partners, minimize unnecessary releases of radiation and be prepared to minimize impacts to human health and the environment should unwanted releases occur.

Sub-objective 1.4.1: Waste Isolation Pilot Plant. Through 2011, EPA will annually fulfill 100% of the Department of Energy's (DOE) requests for waste characterization approvals to ensure that EPA requirements are met for proper disposal at the Waste Isolation Pilot Plant (WIPP). DOE projects that the total number of drums disposed will increase from X drums (X million millicuries) in 2003 to X drums (X million millicuries) in 2011. The estimated total drums to be deposited at the WIPP is 860,000 (2.6 billion millicuries) over the next 35 years.

NACEPT Comments

This implies that EPA's goal is to issue all requested approvals, whether or not the requests are complete and comply with regulations. The 100% target should apply only to complete and lawful requests.

Sub-objective 1.4.2: Emergency Response. By 2011, X% of EPA's radiation assets will meet functional requirements to implement the National Response Plan's Nuclear/Radiological Incident Annex and National Oil and Hazardous Substances Pollution Contingency Plan. (2005 baseline: 50%)

NACEPT Comments

This suggests that some fraction of EPA's radiation assets are "dysfunctional assets" and that it will take 5 years to achieve some higher level of functionality. Do the assets have some interim value that they can be measured against?

What is a "radiation asset"? And is this information sensitive?

Sub-objective 1.4.3: Homeland Security/RadNet. By 2011, RadNet, EPA's National Radiation Monitoring System, will have operational monitors in X% of the most populous U.S. cities. (2005 baseline: X% of the most populous U.S. cities)

NACEPT Comments

FY05 Performance Report says that EPA expects to provide monitoring coverage to 65 percent of the US population by 2009. What's vitally missing here is a discussion of providing protection to the public through materials management and response assistance in the event of releases.

Objective 1.5: Reduce Greenhouse Gas Intensity. Through EPA's voluntary climate protection programs, contribute 80 million metric tons of carbon equivalent (MMTCE) annually to the President's 18% greenhouse gas (GHG) intensity goal by 2012. (An additional 24 MMTCE to result from the sustained growth in the climate programs are reflected in the Administration's Business-as-Usual projection for GHG intensity improvement.)

NACEPT Comments

This objective is difficult to comprehend. How does the 80 MMTCE contribution compare to the MMTCE of the 18% greenhouse gas intensity goal? What is the relationship of the "additional" 24 MMTCE and is it an expected result of EPA activities?

Sub-objective 1.5.1: Buildings Sector. Through EPA's ENERGY STAR® program, prevent 26 MMTCE in the buildings sector in 2012, in addition to the 20 MMTCE prevented annually in 2002.

NACEPT Comments

This and the following two sub-objectives are written to suggest that prevention occurs only in discrete events at ten-year intervals, (2002 and 2012). Was the intent that the *annual* prevention would increase from a 2002 baseline of 20 MMTCE to 26 MMOTCE in 2012?

Sub-objective 1.5.2: Industrial Sector. Through EPA's industrial sector programs, prevent 64 MMTCE in 2012, in addition to the 34 MMTCE prevented annually in 2002.

Sub-objective 1.5.3: Transportation Sector. Through EPA's transportation programs, prevent 13 MMTCE in 2012, in addition to the 2 MMTCE prevented annually in 2002.

Objective 1.6: Enhance Science and Research. Through 2011, provide and apply sound science to support EPA's goal of Clean Air by conducting leading-edge research and developing a better understanding and characterization of human health and environmental outcomes under Goal 1.

Sub-objective 1.6.1: Use Science and Technology to Support Air Programs. Through 2011, use the best available scientific information, monitoring, models, methods, and analyses to support air-program-related guidance, policy decisions, and accountability. Through the Clean Automotive Technology program, EPA and industry partners will demonstrate cost-effective engineering vehicles using cost-effective ultra clean and fuel efficient automotive technology as follows:

Strategic Targets:

• By 2011, demonstrate that the fuel economy of sport utility vehicles, urban delivery vehicles, refuse trucks, and buses can be cost-effectively improved by 60% over the 2001 baseline.

• By 2011, demonstrate that the fuel efficiency of automotive gasoline engines can be cost-effectively improved by 15% over the 2001 baseline.

• By 2011, technologies developed under the Clean Automotive Technology program will be in 2% of the new light/medium duty trucks sold.

NACEPT Comments

This goal seems very timid. If the technology diffusion objective for Clean Automotive Technology technologies is only 2% in 2011, how long will it take for this technology to diffuse into a significant fraction of the national light/medium truck fleet? There is no corresponding objective to move technology into the automotive gasoline engines? What about non-road gasoline engines?

Also, where are we now (2006) in relation to the 2001 baseline?

Sub-objective 1.6.2: Conduct Air Pollution Research. Through 2011, achieve progress toward reducing uncertainty in standard setting and air quality management decisions through advances in understanding in the air pollution sciences and achieve progress in assessing source to health linkages by reducing uncertainties in these linkages.

Strategic Targets:

• Progress toward reducing uncertainty in the science that supports standard-setting and air quality management decisions. Success is defined by an external expert review to measure the utility of the data, tools, and technologies for key Agency decisions *(metric to be established in consultation with external reviewers; measurement methodology still under development).*

• Progress in assessing the linkage between health impacts and air pollutant sources and reducing the uncertainties that impede the understanding and usefulness of these linkages. Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions *(metric to be established in consultation with external reviewers; measurement methodology still under development*).

NACEPT Comments

Many science-related targets make reference to consultation with external reviewers, but do not give a timeline for completion of this review and for development of metrics and measurement methodologies. It would seem that EPA has had adequate time to conduct these reviews since this is the third generation Strategic Plan.

Goal 2: Clean and Safe Water.

Ensure drinking water is safe. Restore and maintain oceans, watersheds, and their aquatic ecosystems to protect human health, support economic and recreational activities, and provide healthy habitat for fish, plants, and wildlife.

Objective 2.1: Protect Human Health. Protect human health by reducing exposure to contaminants in drinking water (including protecting source waters), in fish and shellfish, and in recreational waters.

Sub-objective 2.1.1: Water Safe to Drink. By 2011, 95% of the population served by community water systems will receive drinking water that meets all applicable health-based drinking water standards through effective treatment and source water protection. (2005 Baseline: 88.5% of population served by community water systems meeting all applicable health based drinking water standards.)

Strategic Targets:

• By 2011, community water systems will provide drinking water that meets all applicable health-based drinking water standards during 97% of person months (i.e., all persons served by community water systems times 12 months). (2005 Baseline: community water systems provide drinking water that meets all applicable health-based drinking water standards during 95.17% of person months.)

• By 2011, 95% of community water systems will provide drinking water that meets all applicable health-based drinking water standards throughout the year. (2005 Baseline: 89.2% of community water systems provide drinking water that meets all applicable health-based drinking water standards throughout the year.)

• By 2011, 95% of the population in Indian country served by community water systems will receive drinking water that meets all applicable health-based drinking water standards throughout the year. (2005 Baseline: 86.3% of population in Indian country served by community water systems received drinking water that meets all applicable health-based drinking water standards throughout the year.)

• By 2011, minimized risk to public health will be achieved for 80% of community water systems and for an associated 80% of the population served by community water systems (i.e., "minimized risk" achieved by substantial implementation, as determined by the state, of source water protection actions in a source water protection strategy.) (2005 Baseline: 20% of community water systems; 28.4% of the population served by community water systems.)

NACEPT Comments

How does this risk-based objective relate to the prior targets related to health-based drinking water standards? Is the Agency suggesting that 15% to 17% of community water supplies will present public health risks even when they are in full compliance with health-based drinking water standards?

• By 2015, in coordination with other Federal agencies, reduce by 50% the

number of homes on tribal lands lacking access to safe drinking water. (2003 Baseline: Indian Health Service data indicating that 12% of homes on tribal lands lack access to safe drinking water; i.e.,, an estimated 38,637 homes lacking access.)

NACEPT Comments
Prior target is 95% of population in tribal communities will receive drinking water meeting health-based standards by 2011. This target is 94% percent of homes having access to safe drinking water by 2015. Assuming that homes have constant number of occupants, this target appears to retreat from the 2011 target.

Sub-objective 2.1.2: Fish and Shellfish Safe to Eat. By 2011, reduce public health risk and allow increased consumption of fish and shellfish, as measured by the strategic targets described below.

Strategic Targets:

• By 2011, reduce the percentage of women of child-bearing age having mercury levels in blood above the level of concern from 5.7% to 4.6%. (2002 Baseline: 5.7% of women of child-bearing age have mercury blood levels above levels of concern identified by the National Health and Nutrition Examination Survey [NHANES].)

NACEPT Comments
Because geographical population variations, consumer education and choices have substantial impacts on consumption of mercury-contaminated fish, changes in the national percentage of women with elevated blood mercury levels is not a valid indicator of changes in mercury levels in fish and shellfish. A more direct and reliable indicator would be actual fish tissue mercury levels.

• By 2011, maintain or improve the percentage of state monitored shellfish-growing acres that are approved or conditionally approved for use that are impacted by anthropogenic sources. (2003 Baseline: to be determined based on identification of acres impacted by anthropogenic sources.)

NACEPT Comments
Neither a baseline nor measurable targets have been identified.

Sub-objective 2.1.3: Water Safe for Swimming. By 2011, the number of waterborne disease outbreaks attributable to swimming in, or other recreational contact with, coastal and Great Lakes waters will be maintained at 2, measured as a 5-year average. (2005 Baseline: an annual average of 2 recreational contact waterborne disease outbreaks reported per year by the Centers for Disease Control over the years 1998 to 2002; adjusted to remove outbreaks associated with waters other than coastal and Great Lakes waters and other than natural surface waters [such as pools or water parks].)

Strategic Targets:

• By 2011, maintain the percentage of days of the beach season that coastal and

Great Lakes beaches monitored by state beach safety programs that are open and safe for swimming at 96%. (2004 Baseline: beaches open 96% of the 584,150 days of the beach season; i.e., beach season days = 3,574 beaches times variable number of days of beach season at each beach.)

NACEPT Comments

It is unclear why Sub-objective 2.1.3 is based on one measurable, but the associated strategic target is based on a different measurable. The term "By 2011, implies that the sub-objective and target will be achieved in 2011, but not necessarily in the in the intervening years.

Objective 2.2: Protect Water Quality. Protect the quality of rivers, lakes, and streams on a watershed basis and protect coastal and ocean waters.

Sub-objective 2.2.1: Improve Water Quality on a Watershed Basis. By 2012, use both pollution prevention and restoration approaches to protect the quality of rivers, lakes and streams on a watershed basis, as measured by the strategic targets described below.

NACEPT Comments

Since approaches such as "pollution prevention" have specific definitions within EPA's toolbox, it is unclear if the identification of these approaches implies the exclusion of other tools, such as compliance monitoring, compliance assistance, incentives and enforcement.

Strategic Targets:

• By 2012, attain water quality standards for all pollutants and impairments in over 3,700 waterbodies identified in 2002 as not attaining standards. Waterbodies where mercury is among multiple pollutants causing impairment may be counted toward this target when all pollutants but mercury attain standards, but must be identified as still needing restoration for mercury. (2002 Baseline: 35,208 waterbodies identified by States and Tribes as not meeting water quality standards; 1,768 of these waterbodies impaired by multiple pollutants including mercury; baseline to be updated in April 2006.)

• By 2012, remove at least 8,500 of the specific causes of waterbody impairment identified by States in 2002. (2002 Baseline: estimate of 57,948 specific causes of waterbody impairment identified by States and Tribes; baseline to be updated by April 2006.)

• By 2012, improve water quality conditions in 250 impaired watersheds nationwide using the watershed approach. (2002 Baseline: zero watersheds improved of an estimated 40,000 - 50,000 impaired USGS 12 digit watersheds with one or more waterbody impaired; improved means that one or more of the impairment causes identified in 2002 are removed for at least 40% of the impaired waterbodies or impaired miles/acres; estimate of impaired watersheds to be updated in April 2006.)

NACEPT Comments

A previous target identified 35,208 waterbodies as not meeting water quality standards,

this target places the number at 40,000 to 50,000. It is uncertain which is correct. It is unclear what is meant by "improved means that one or more of the impairment causes identified in 2002 area removed for at least 40% of the impaired waterbodies or impaired miles/acres."

• By 2012, the condition of the Nation's wadeable streams does not degrade (i.e., there is no statistically significant increase in the percent of streams rated "poor" and no statistically significant decrease in the streams rated "good". (2006 Baseline: Wadeable Stream Survey identifies XX% of wadeable streams in good condition; XX% in fair condition; XX% in poor condition; Wadeable Stream Survey results expected March 2006.)

NACEPT Comments
Is this a target to be attained by 2012 or a level to be maintained through 2012?

• By 2012, improve water quality in Indian country at not fewer than 10% of baseline monitoring stations for tribal waters (i.e.,, show improvement in one or more of four parameters; dissolved oxygen, pH, water temperature, and turbidity). (2004 Baseline: an estimated 743 stations in EPA's STORET data system in Indian Country, or within 1,500 meters of Indian Country, that monitored for key parameters at least once between 1995 – 2005.)

NACEPT Comments
Ten percent improvement over a 5-year period implies that it will take 50 years to achieve some level of improvement at all 743 monitoring stations. This seems particularly unambitious.

• By 2015, in coordination with other Federal partners, reduce by 50% the number of homes on tribal lands lacking access to basic sanitation. (2003 Baseline: Indian Health Service data indicating that 8.4% of homes on tribal lands lack access to basic sanitation; i.e., 26,777 homes of an estimated 319,070 homes lacking access.)

NACEPT Comments
This target suggests that sanitation will not be fully provided for the next 20 years, and equates to approximately 1,300 homes per year, or approximately 4,500 to 6,000 people per year. This likewise appears unambitious.

Sub-objective 2.2.2: Improve Coastal and Ocean Waters. By 2011, prevent water pollution and protect coastal and ocean systems to improve national coastal aquatic ecosystem health by at least 0.2 points on the "good/fair/poor" scale of the National Coastal Condition Report. (2004 Baseline: National rating of "fair/poor" or 2.3, where the rating is based on a 4 point system ranging from 1.0 to 5.0 in which 1 is poor and 5 is good using the National Coastal Condition Report indicators addressing water quality sediment quality, coastal habitat, benthic index, and fish contamination index).

NACEPT Comments
This objective, in particular, depends on actions taken by state and local governments, but no role is identified for the partners.

Strategic Targets:

• By 2011, at least maintain aquatic ecosystem health on the "good/fair/poor" scale of the National Coastal Condition Report in the Northeast Region. (2004 Baseline: Northeast rating of 1.8.)

NACEPT Comments

This and the following three strategic targets call for no specific improvement in ecosystem health even in regions with fair/poor evaluations. Most, if not all actions to maintain/achieve these targets are taken by state and local entities. However, there is no reference to goals, objectives and actions of partners.

• By 2011, at least maintain aquatic ecosystem health on the "good/fair/poor" scale of the National Coastal Condition Report in the Southeast Region. (2004 Baseline: Southeast rating of 3.8.)

• By 2011, at least maintain aquatic ecosystem health on the "good/fair/poor" scale of the National Coastal Condition Report in the West Coast Region. (2004 Baseline: West Coast rating of 2.0.)

• By 2011, at least maintain aquatic ecosystem health on the "good/fair/poor" scale of the National Coastal Condition Report in the Puerto Rico Region. (2004 Baseline: Puerto Rico rating of 1.7.)

• By 2011, 95% of active dredged material ocean dumping sites will have achieved environmentally acceptable conditions (as reflected in by each site's Site Management Plan). (2005 Baseline: 94%.)

Objective 2.3: Enhance Science and Research. Provide and apply a sound scientific foundation to EPA's goal of clean and safe water by conducting leading-edge research and developing a better understanding and characterization of the environmental outcomes under Goal 2.

Sub-objective 2.3.1: Apply the Best Available Science. By 2011, apply the best available science (e.g., tools, technologies, and scientific information) to support Agency regulations and decision-making for current and future environmental and human health hazards related to reducing exposure to contaminants in drinking water, fish and shellfish, and recreational waters and protecting aquatic ecosystems.

NACEPT Comments

This and the following sub-objective suggest that EPA will *not* apply and conducting best available and leading science until 2011. In the interim, what science will be applied? This is identical to comments made with regard to the 2003 Strategic Plan and Architecture. As expressed, these sub-objectives provide no measurables by which to assess Agency performance.

Sub-objective 2.3.2: Conduct Leading-Edge Research. By 2011, conduct leading-edge, sound scientific research to support the protection of human health through the reduction of human exposure to contaminants in drinking water, fish and shellfish, and recreational waters and to support the protection of aquatic ecosystems – specifically, the quality of rivers, lakes and streams, and coastal and ocean waters.

NACEPT Comments
This implies that between now and 2011, EPA will conduct "trailing-edge research."
Strategic Targets:

• ORD will develop data, tools, and technologies that the Agency uses to inform decisions for the 6 year review of drinking water standards and contaminant candidate listing decisions. Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions *(metric to be established in consultation with external reviewers; measurement methodology still under development).*

• ORD will develop approaches and methods that the Agency and other key clients use to inform the development and application of criteria for habitat alteration, nutrients, suspended and bedded sediments, pathogens and toxic chemicals to achieve targets for meeting designated uses for aquatic systems. Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions *(metric to be established in consultation with external reviewers; measurement methodology still under development).*

• ORD will develop tools that the Agency and other key clients use to assess and diagnose the causes and pollutant sources of impairment to achieve targets for meeting designated uses for aquatic systems. Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions *(metric to be established in consultation with external reviewers; measurement methodology still under development).*

• ORD will develop research products and activities that the Agency and other key clients use for the restoration of impaired aquatic systems, protection of unimpaired systems and to forecast the ecological, economic, and human health benefits of alternative approaches used to meet designated aquatic use targets. Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions *(metric to be established in consultation with external reviewers; measurement methodology still under development).*

• ORD will develop approaches, methods, and tools that the Agency and other key clients use to assess the exposures and reduce the human health risks from biosolids contaminants in updating biosolids guidance and regulations. Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions *(metric to be established in consultation with external reviewers; measurement methodology still under development).*

NACEPT Comments

Many references are made to external research reviews, but there is no discussion of what the basis for the reviews will be, when such reviews will occur, nor is there any indication of how the reviews will be incorporated into the Strategic Plan. Further, there is no discussion of what the value/application of the research efforts is expected to be. Research, in particular, is an important area where outputs need to be identified and linked specifically to outcomes. For example, there is no explicit link of any of the research goals to increasing access to potable water.

The Water Infrastructure Sustainability Initiative does not appear to be present in the Architecture.

Goal 3: Land Preservation and Restoration.

Preserve and restore the land by using innovative waste management practices and cleaning up contaminated properties to reduce risks posed by releases of harmful substances.

> *Note to Reviewers: OSWER has identified in this draft strategic plan some modified and new measures. OSWER also is evaluating existing performance measures to identify areas of improvement.*

Objective 3.1: Preserve Land. By 2011, reduce adverse effects to land by reducing waste generation, increasing recycling, and ensuring proper waste management of waste and petroleum products at facilities in ways that prevent releases.

Sub-objective 3.1.1: Decrease Waste Generation and Increase Recycling. Through 2011, reduce adverse effects to land by diverting materials from disposal through increased material reuse and recycling.

Strategic Targets:

• By 2011, decrease the total amount of municipal solid waste disposed at landfills and combustion facilities by xx tons, from XX (tons) in YYYY (year).

• By 2011, increase recycling of the total annual municipal solid waste produced to 40% from 30.6% in 2003.

• By 2011, increase reuse and recycling of construction and demolition debris by XX% from a baseline of YY% in 200X.

• By 2011, increase the use of coal combustion ash to 50% from XX% in 200X.

• By 2011, increase by XX%, from XX% in year YYYY, the number of Tribes covered by an integrated waste management plan that has been approved by an appropriate governing body within the last 5 years.

• By 2011, reduce the number of open dumps on Tribal lands by XX%, from XX% in year YYYY.

Sub-objective 3.1.2: Manage Hazardous Wastes and Petroleum Products Properly. By 2011, reduce releases to the environment by managing hazardous wastes and petroleum products properly.

Strategic Targets:

• By 2011, prevent releases from RCRA hazardous waste management facilities by increasing the number of facilities that were brought under approved or updated controls from XX (at the end of FY 2008) to XX.

• By 2011, increase the percentage of UST facilities that are in significant operational compliance with both release detection and release prevention requirements by 5% compared to 2006, out of a total estimated universe of approximately XXX,XXX facilities.

NACEPT Comments
Five percent over a five-year period equates to one percent per year. At this rate, it will take a *century* to bring the universe of UST facilities into significant operational compliance.

• Each year through 2011, minimize the number of confirmed releases at UST facilities to 10,000 or fewer from a universe of approximately 650,000 UST tanks.

Objective 3.2: Restore Land. By 2011, control the risks to human health and the environment by mitigating the impact of accidental or intentional releases and by cleaning up and restoring contaminated sites or properties to appropriate levels.

NACEPT Comments
Restoration of brownfields sites is essential to this objective, yet brownfields sites are not mentioned. The contribution of brownfields restoration activities under sub-objective 4.2.3 should be included here.

Sub-objective 3.2.1: Prepare for and Respond to Accidental and Intentional Releases. By 2011, reduce and control the risks posed by accidental and intentional releases of harmful substances by improving our nation's capability to prevent, prepare for, and respond more effectively to these emergencies.

Strategic Targets:

• By 2011, achieve and maintain at least 95% of maximum score on readiness evaluation criteria in each region.

• Between 2007 and 2011, complete 975 Superfund-lead hazardous substance removal actions.

NACEPT Comments
No baseline specified. Is this a significant target?

• Between 2007 and 2011, oversee and complete 650 voluntary removal actions.

NACEPT Comments
No baseline specified. Is this a significant target?

• By 2011, reduce by 25% the gallons of oil spilled by facilities subject to Facility Response Plan regulations relative to the baseline year of 2003.

• By 2011, increase the compliance rate to 90% of all facilities subject to Facility Response Plan regulations from 50% in 2004.

NACEPT Comments
Does the relevant statute allow EPA to establish targets less than full compliance by the regulated community?

Sub-objective 3.2.2: Clean Up and Revitalize Contaminated Land. By 2011, control the risks to human health and the environment at contaminated properties or sites through cleanup, stabilization, or other action, and make land available for reuse.

NACEPT Comments
Restoration of brownfields sites is essential to this objective, yet brownfields sites are not mentioned. The contribution of brownfields restoration activities under sub-objective 4.2.3 should be included here.

The strategic targets below all have different universe sizes. What is the origin of these varying universe sizes?

Are these current Superfund sites, or do they reflect current sites that could become Superfund sites if state or local governments don't take action?

Strategic Targets:

• By 2011, evaluate relative risk at 40,390 potentially hazardous waste sites to resolve community concerns on whether these sites require long-term cleanup to protect public health and the environment, or if they can be cleared of Superfund liability for possible redevelopment.

NACEPT Comments
No baseline specified. Are all of the sites on the current Superfund list or are these potential new sites not yet evaluated?

• By 2011, control all identified unacceptable human exposures from site contamination to health-based levels, or below, for current land and/or groundwater use conditions at 84% (1,294) of 1,543 Superfund human exposure sites (as of FY 2005). This baseline includes 172 Superfund Federal facility sites. By 2011, increase the percentage of high

priority RCRA facilities with human exposures to toxins controlled to XX% from XX% in 20YY. By 2020, control all identified unacceptable human exposures from site contamination to health-based levels, or below, for current land and/or groundwater use conditions at 95% of all facilities requiring RCRA Corrective Action (universe to be finalized by end of 2007).

NACEPT Comments
There is no prioritization of sites with highest human impact potential. A remote site has less impact potential than an urban site.

• By 2011, control the migration of contaminated groundwater through engineered remedies or natural processes at 74% (1,016) of 1,381 Superfund ground-water sites (as of FY 2005). This baseline includes 166 Superfund Federal facility sites. By 2011, increase the percentage of high priority RCRA facilities with toxic releases to groundwater controlled to XX% from XX% in 20YY. By 2020, control the migration of contaminated groundwater through engineered remedies or natural processes at 95% of all facilities requiring RCRA Corrective Action (universe to be finalized by end of 2007).

NACEPT Comments
There is no indication of priority or importance of sites to be controlled. For example, are they large or small sites? What is the potential exposure represented?

• By 2011, reduce the backlog of LUST cleanups that exceed state risk-based standards for human exposure and groundwater migration from 27% down to 20% and complete construction of remedies at approximately 76% (1,171) of 1,547 Superfund sites (as of FY 2005). This baseline includes 172 Superfund Federal facility sites. (Note: construction completion is a milestone which indicates that all significant construction activity has been completed, even though additional remediation may be needed for all cleanup goals to be met).

NACEPT Comments
It is unclear what is meant by backlog as a percentage of some unidentified number. Is the percent backlog related to the 1,547 Superfund sites or some other universe?

• By 2020, complete construction of final remedies at 95% of all facilities requiring RCRA Corrective Action (universe to be finalized by end of 2007).

• By 2011, ensure that 90% of the 115 Superfund Federal facility sites on the NPL that require 5-year reviews remain protective of human health and the environment or actions are underway to ensure such protectiveness.

NACEPT Comments
If 115 Federal facilities require 5-year reviews, then the Federal government should be committed to 100 percent compliance.

• By 2011, delete 8% (105) of 1,239 final NPL sites (as of FY 2005) that require no further response activities to protect human health or the environment. This baseline includes 158 Superfund Federal facility sites.

NACEPT Comments

It is unclear what the objective is here. If the objective is to clean up 105 sites to the "no further response" level, this should be made clear. This does not seem like an aggressive enough goal, and implies that it will take more than a *century* to address all 1,239 current NPL sites.

Sub-objective 3.2.3: Maximize Potentially Responsible Party Participation at Superfund Sites. Through 2011, conserve Superfund trust fund resources by ensuring that potentially responsible parties conduct or pay for Superfund cleanups whenever possible.

Strategic Targets:

• Each year through 2011, reach a settlement or take an enforcement action before the start of a remedial action at 95% of Superfund sites having viable, liable responsible parties other than the Federal government.

NACEPT Comments

This target should also include and encourage voluntary clean-up actions by responsible parties prior to settlement or enforcement action.

• Each year through 2011, address all Statute of Limitations cases for Superfund sites with unaddressed total past costs equal to or greater than $200,000.

NACEPT Comments

While this is a good objective for cases over $200,000, does this imply writing off cases less than $200,000? What does this mean in terms of lost recovery of public expenditures related to these sites? Is write-off of less than $200,000 sites authorized under the statute?

Objective 3.3: Enhance Science and Research. Through 2011, provide and apply sound science for protecting and restoring land by conducting leading-edge research, which through collaboration, lead to preferred environmental outcomes.

Sub-objective 3.3.1: Provide Science to Preserve Resources and Remediate Land. Through 2011, provide sound science and constantly integrate partner inputs for smarter technical solutions and protection strategies that enhance our ability to remediate contaminated land for beneficial use, conserve resources and materials management, and preserve land quality.

Strategic Target:

• Lead the incorporation of sound science into OSWER guidance and decisions on land preservation and remediation.

NACEPT Comments

What does this target mean, who determines that the science is sound, and how will this be measured?

Sub-objective 3.3.2: Conduct Research to Preserve Resources and Support Land Remediation Activities. Through 2011, conduct sound, leading-edge scientific research to provide a foundation for preserving resources, supporting land quality and remediating contaminated land. Research will result in documented methods, models, assessments, and risk management options for program and regional offices, facilitating their accurate evaluation of effects on human health and the environment, understanding of exposure pathways, and implementation of effective risk-management options. Communicate research affecting Indian country in partnership with Tribes.

NACEPT Comments
The last sentence referencing Indian country seems to be disconnected from the sub-objective.

Strategic Targets:

• Through 2011, clients request and apply timely and leading edge ORD research products and services needed to manage material streams, conserve resources and appropriately manage waste. Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions *(metric to be established in consultation with external reviewers; measurement methodology still under development).*

NACEPT Comments
For this and the following strategic target, who is the client? Is it EPA offices and partners or the regulated community? There is substantial effort at state levels, among academic institutions, and in the private sector. How are these other activities assessed and considered by EPA in achieving client satisfaction? It is important that both outputs and outcomes be established and performance reviewed against them.

• Through 2011, clients request and apply timely and leading edge ORD research products and services needed for mitigation, management and long-term stewardship of contaminated sites. Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions *(metric to be established in consultation with external reviewers; measurement methodology still under development).*

GOAL 4: Healthy Communities and Ecosystems.

Protect, sustain, or restore the health of people, communities, and ecosystems using integrated and comprehensive approaches and partnerships.

NACEPT Comments
Although the goals expressed in this section are specific and precise, it is not clear what they mean, what the priorities are/should be for achieving them or what their efficacy is.

Objective 4.1: Chemical and Pesticide Risks. Prevent and reduce pesticide, and industrial chemical risks to humans, communities, and ecosystems.

Sub-objective 4.1.1: Reduce Chemical Risks. Through 2011, prevent and reduce chemical risks to humans, communities, and ecosystems.

Strategic Targets:

• By 2011, eliminate or effectively manage risks associated with 100% of High Production Volume (HPV) chemicals for which unreasonable risks have been identified through EPA risk assessments.[1]

NACEPT Comments
How will this be measured and assessed?

• Through 2011, ensure that new chemicals introduced into commerce after Pre-Manufacture Notifications (PMNs) Review do not pose unreasonable risks to workers, consumers, or the environment.[2]

NACEPT Comments
How will this be measured and assessed?

• By 2011, achieve a 30.6% cumulative reduction of chronic human health risk from environmental releases of industrial chemicals in commerce since 2001.[3]

NACEPT Comments
How will this be measured and assessed?

• By 2010, eliminate childhood lead poisoning cases as a public health concern by reducing to zero the number of cases of children (aged 1-5 years) with elevated blood lead levels (>10ug/dl).[4]

NACEPT Comments
This objective relies solely on consumer behavior. What strategies/tools will EPA rely on to achieve this objective?

• By 2010, reduce to 28.0% the percent difference in the geometric mean blood lead level in low-income children 1-5 years old as compared to the geometric mean for non-low income children 1-5 years old.[5]

• By 2011, through work with international partners, eliminate the use of lead in gasoline in the remaining 35 countries that still use lead as an additive, affecting over 700 million people. (Baseline: As of January 2006, 35 countries still need to

phase lead out of gasoline. Information source: United Nations Environment Program and the Partnership for Clean Fuels and Vehicles maintain a global database on fuel quality, which they update periodically.)

• By 2011, through work with international partners, over 3 billion people will have access to low-sulfur fuel in 15 countries, including China, India, Mexico and Brazil. (Baseline: As of January 2006, none of the developing countries has access to low-sulfur fuel. Information source: United Nations Environment Program and the Partnership for Clean Fuels and Vehicles maintain a global database on fuel quality, which they update periodically.)

[1] Baseline: EPA screening of data obtained through the HPV Challenge Program is commencing in 2006; actions to obtain additional information needed to assess risks will commence subsequently as chemicals are identified as priority concerns through the screening process. Measurement Mechanism: HPVIS and EPA risk management action tracking tools, including RAPIDS.

[2] Baseline: 100% in FY 2004 and FY 2005. Measurement Mechanism: Number of TSCA 8(e) Chemical Hazard Notifications associated with PMN-reviewed chemicals verified to identify the occurrence of unreasonable risks.

[3] Baseline: 2001 starting point is 0. Actual cumulative reduction reported from 2001 – 2003 is 6.6% (5.7% for 2001 – 2002; 0.9% for 2002 – 2003. Target assumes annual 3.0% reductions for remaining years through 2011. Measurement Mechanism: EPA's Risk Screening Environmental Indicators model.

[4] Baseline: 310,000 cases in 1999-2002. Measurement Mechanism: NHANES.

[5] Baseline: 37.0% in 1991-1994. Measurement Mechanism: NHANES.

Sub-objective 4.1.2: Protect Human Health from Pesticide Risk. Through 2011, protect human health by ensuring that pesticides continue to be safe and available when used in accordance with the label.

Strategic Targets:

• By 2011, protect human health by reducing the percentage of the general population with detectable levels of currently registered pesticides in their bodies by a cumulative total of XX%. (Metric under development for inclusion in the full text draft.)

• By 2011, reduce the occurrence of pesticide related illnesses and incidents in the pesticide occupational community by XX% (agricultural workers and pesticide applicators). (Metric under development for inclusion in the full text draft.)

• Through 2011, improve protection by working with other nations to facilitate quicker market entry, availability, and use of lower risk pesticides through worksharing with NAFTA and OECD on a cumulative XX number of reduced risk pesticides. (Metric under development for inclusion in the full text draft.)

Sub-objective 4.1.3: Protect the Environment from Pesticide Risk. Through 2011, protect the environment by ensuring that pesticides continue to be safe and available when used in accordance with the label.

Strategic Targets:

• By 2011, establish the baseline and reduce by a cumulative XX% the contribution of pesticides to environmental impairments. (Metric under development for inclusion in the full text draft.)

• By 2011, working with states and tribes, identify XX pesticides of concern to water quality, use available tools to manage the risk, and effect a positive change in environmental conditions. (Metric under development for inclusion in the full text draft.)

• By 2011, protect endangered and threatened species from pesticide exposure by reducing the exposure levels by a cumulative XX%. (Metric under development for inclusion in the full text draft.)

Sub-objective 4.1.4: Realize the Benefits from Pesticide Use. Through 2011, ensure the public health and economic benefits of pesticide availability and use are achieved.

Strategic Targets:

• By 2011, ensure the public health and economic benefits of pest control are achieved by avoiding XXX (cumulative) amount of crop loss through ensuring effective pesticides are available to address emergency pest infestations. (Metric under development for inclusion in the full text draft.)

• By 2011, decrease structural damage and vector borne disease by a cumulative XX%. (Metric under development for inclusion in the full text draft.)

Sub-objective 4.1.5: Reduce Risks at Facilities or in Communities. By 2011, protect human health, communities, and the environment for chemical releases through facility risk reduction efforts and building community's preparedness and response capabilities.

Strategic Targets:

• By 2011, reduce by XX pounds inventories of hazardous chemicals at Risk Management Plan facilities.

NACEPT Comments
Is this a regulatory goal of the RMP program?

• By 2011, reduce by 5% the number of accidents and the consequences of those accidents (including evacuation, injuries, fatalities, and property damage).

NACEPT Comments
This is highly dependent on factors external to the Agency and outside the regulatory jurisdiction of the Agency. How will EPA accomplish this?

• By 2011, vulnerability zones surrounding Risk Management Plan facilities will be reduced by XX% which will result in the protection of XX people in the community.

• By 2011, improve by XX% from the 2007 baseline the capabilities of Local Emergency Planning Committees (LEPCs) to prevent, prepare for, and respond to chemical emergencies thereby reducing the risk to communities from the devastating effects of chemical accidents, as measured by a survey of those LEPCs.

NACEPT Comments
This target references a *future* baseline. This target is dependent entirely on actions by state and local entities and the regulated community and outside the regulatory jurisdiction of the Agency.

Objective 4.2: Communities. Sustain, clean up, and restore communities and the ecological systems that support them.

Sub-objective 4.2.1: Sustain Community Health. Reduce the air, water, and land impacts of new growth and development in 50 communities by 2011 (2006 as a baseline) by working with communities to adopt growth strategies that perform better for the environment, economy, and the community. (Metric under development).

NACEPT Comments
What is the baseline of communities by which this target is measured? 50 communities over 5 years seems an extremely small number. How will this be accomplished, how will it be coordinated with other agencies, and how will target communities be selected?

Sub-objective 4.2.2: Restore Community Health through Collaborative Problem-Solving: Make significant environmental improvements in communities with potential disproportionately high and adverse environmental and/or public health effects ("areas with potential environmental justice concerns") and foster the ability of communities to address local environmental concerns with other stakeholders through collaborative problem-solving.

Strategic Targets:

• By 2011, an additional 30 communities in areas with potential environmental justice concerns will achieve significant measurable environmental and/or public health improvements through the use of collaborative problem-solving strategies. In 2006, 30 communities used collaborative problem-solving strategies to improve their environmental and/or public health.

NACEPT Comments
What is the baseline of communities in need of collaborative problem-solving? Is this an ongoing training program in which communities come and go or is the program capacity expected to double by 2011?

What is the specific deliverable here – training, technical assistance? Does this means EPA will be involved in a total of 60 communities or 30 different communities?

• By 2011, as compared to the general population, significantly decrease the amount of pollution that may disproportionately affect the environmental health of communities with potential environmental justice concerns. This reduction will include, as appropriate, pollutant sources associated with the national environmental justice priorities.

NACEPT Comments
How will this be measured?

What does this mean and how will it be achieved? Will EPA develop programs over and above the expected regulatory programs; or that go beyond regulatory requirements?

Sub-objective 4.2.3: Assess and Clean Up Brownfields: Working with state, tribal, and local partners, promote the assessment, cleanup, and sustainable reuse of brownfields properties.

NACEPT Comments
What specific actions is EPA planning to take?

Brownfields activities are essential to Goal 3: Land Preservation and Restoration, and should be discussed under Goal 3 objectives and sub-objectives as well as here.

Strategic Targets:

• By 2011, conduct environmental assessments at XXXX properties.

• By 2011, make XXXX acres of brownfields ready for reuse.

• By 2011, leverage XXXX in assessment, cleanup, and redevelopment funding at brownfields properties.

Sub-objective 4.2.4: Sustain and Restore U.S.-Mexico Border Environmental Health. By 2012, sustain and restore the environmental health along the US-Mexico Border and enhance collaboration with communities through implementation of the ABorder 2012,@ plan including improving water infrastructure and providing improved water quality conditions and working toward a binational policy on land cleanup, reuse, and revitalization of abandoned sites based on the strategic targets described below.

Strategic Targets:

• By 2012, achieve a majority of currently exceeded water quality standards in impaired reaches or segments of significant shared and trans-boundary surface waters. (2002 Baseline: 42 of water quality impairments/sources identified for 19

reaches or segments of significant shared and trans-boundary surface waters; to be determined early 2006)

NACEPT Comments
This target is quite confusing. Is the objective to reduce the total number of impairments by more than half, even if no individual reach actually becomes unimpaired?

How is success measured here? Would elimination of 22 problems/exceedences be considered success even if no individual reach actually attained all applicable water quality standards? This target needs to be clarified.

• By 2012, provide safe drinking water to 25% of homes in the Mexico Border area that lacked access to safe drinking water in 2003. (2003 Baseline: 98,575 homes lack access to safe drinking water; 2000 Census estimate of homes lacking access minus homes provided with access between 2000 and 2003)

NACEPT Comments
Since this and the next target are substantially lower than the water-related targets under Goal 2 both generally and with respect to tribal lands, is this, in effect, setting up an environmental justice nexus in the border area? Why is this different here as opposed to under Goal 2?

• By 2012, provide adequate wastewater sanitation to 25% of homes in the Mexico Border area that lacked access to wastewater sanitation in 2003. (2003 Baseline: 690,723 homes lack access to wastewater sanitation; 2000 Census estimate of homes lacking access to adequate wastewater sanitation minus homes provided with access between 2000 and 2003.)

• By 2012, cleanup five waste sites (two abandoned waste tires sites and three abandoned hazardous waste sites) in the U.S.-Mexico border region, thereby reducing the threat of infectious diseases and acute respiratory illnesses from tire fires and the threat of acute heavy metals poisoning and long-term central nervous damage, potentially adversely affecting approximately 1.7 million local residents.

NACEPT Comments
While this is a very specific target, how does it relate to the universe of the potential sites and impacts in the entire border region? Are there plans to transfer the lessons learned here to other sites?

Sub-objective 4.2.5: Reduce POPs Exposure: By 2011 reduce the mean maternal serum blood levels of POPs contaminants in indigenous populations in the Arctic.[6]

NACEPT Comments
How will these targets be achieved? Specific programs need to be identified, along with the measurements that will link them to the projected outcomes.

Strategic Targets:

• By 2011, reduce mean maternal blood levels of PCBs (measured as Aroclor 1260) in indigenous populations in the Arctic to 5.65 ug/l.

NACEPT Comments
How will this and the following objective be accomplished?" How is this directly correlated to the environment?

• By 2011, reduce mean maternal blood levels of chlordane (measured as the metabolites oxychlordane and trans-nonachlor) in indigenous populations in the Arctic to 1.13 ug/l.

[6] For both strategic targets -- Baseline: The 2006 calculated baseline mean maternal serum level for PCBs was 6.28 ug/l and for total chlordane was 1.26 ug/l. This initial baseline was calculated based on Arctic Monitoring and Assessment Program data (AMAP, 2003), which includes human health data points from indigenous maternal populations across the Arctic, including Alaska, Canada, Norway, and the Russian Federation. Measurement Mechanism: Assessment of data from AMAP, an existing international scientific working group, which advises governments of the eight Arctic countries on issues related to pollution in the Arctic. AMAP data is presented in periodic scientifically-based assessments (available at www.amap.no), which are a result of cooperative efforts involving a large number of scientists and other stakeholders, who follow agreed quality assurance and control protocols consistent with such practices common in the United States.

Objective 4.3: Restore and Protect Critical Ecosystems. Protect, sustain, and restore the health of critical natural habitats and ecosystems.

NACEPT Comments
By establishing "critical ecosystems" and ecosystem-specific sub-objectives, is the Agency devaluing non-listed ecosystems? Will this have an impact on priority setting and resource allocation during implementation of the Strategic Plan?

Sub-objective 4.3.1: Increase Wetlands. By 2011, working with partners, achieve a net increase in wetlands acres with additional focus on assessment of wetland condition as determined by the Strategic Targets described below.

Strategic Targets:

• By 2011, working with partners, achieve a net increase of 100,000 acres of wetlands per year with additional focus on biological and functional measures and assessment of wetland condition. (2003 Baseline: annual net wetland gain/loss to be determined in Spring of 2006 based on new Fish and Wildlife Service Report)

• By 2011, in partnership with the U.S. Army Corps of Engineers, States, and tribes, achieve no net loss of wetlands each year under Section 404 of the Clean Water Act regulatory program, beginning in 2007. (Baseline: new baseline to be determined in 2008)

NACEPT Comments
How do these two targets fit together? Is the second target a sub-set of the first target?

How are these two targets coordinated so that the net increase of the first target is

achieved if the net outcome of Section 404 activities is zero?

Sub-objective 4.3.2: Facilitate the Ecosystem-scale Protection and Restoration of Estuaries of National Significance Designated under the National Estuary Program: By 2011, working with partners, protect or restore an additional (i.e., measuring from 2007 forward) 250,000 acres of habitat within the study areas for the 28 estuaries that are part of the National Estuary Program. (2005 Baseline: 510,910 acres of habitat protected or restored; cumulative from 2001.)

NACEPT Comments
Protection and restoration are separate processes/programs. Although providing program flexibility is desirable, are the two being tracked separately to make certain both goals are being met?

Sub-objective 4.3.3: Improve the Health of Great Lakes Ecosystem. By 2011, prevent water pollution and protect aquatic systems so that the overall ecosystem health of the Great Lakes is at least 23 points on a 40 point scale. (2005 Baseline: Great Lakes rating of 21.5 on the 40-point scale where the rating uses select Great Lakes State of the Lakes Ecosystem indicators based on a 1 to 5 rating system for each indicator, where 1 is poor and 5 is good.)

NACEPT Comments
How is this sub-objective coordinated with activities under Goal 2 and Goal 5?

Strategic Targets:

• Through 2011, maintain or improve an average 5% decline for the long-term trend in average concentrations of PCBs in whole lake trout and walleye samples. (Baseline: exponential decay of Great Lake dataset beginning with 1990.)

This is and the following target are confusing and should be reworded to state that the average concentrations should decline by 5% or greater per year.

• Through 2011, maintain or improve an average 7% decline for the long-term trend in average concentrations of toxic chemicals (PCBs) in the air in the Great Lakes basin. (2004 Baseline: Exponential decrease of average concentrations using IADN data through 2000.)

• By 2010, restore and delist a cumulative total of at least 10 Areas of Concern within the Great Lakes basin (2005 Baseline: 0 areas of concern de-listed as of 2005 of the 31 total areas of concern.)

• By 2011, remediate 7 million cubic yards of contaminated sediment in the Great Lakes. (2005 Baseline: 3.7 million cubic yards of contaminated sediments from the Great Lakes have been remediated from 1997 through 2005 of the 75 million yards estimated to need remediation.)

Sub-objective 4.3.4: Improve the Aquatic Health of the Chesapeake Bay. By 2011, prevent water pollution and protect aquatic systems so that the overall aquatic system health of the Chesapeake Bay is improved as measured by the strategic targets described below.

Strategic Targets:

• By 2011, 45% of the submerged aquatic vegetation goal for the Bay will be achieved. (2005 Baseline: 39% of submerged aquatic vegetation goal achieved; the ultimate goal is 100% achievement of the 185,000 acre goal for submerged aquatic vegetation.)

• By 2011, 63% of dissolved oxygen goal will be achieved. (2005 Baseline: 57% of dissolved oxygen goal achieved; the ultimate goal is 100% attainment of the dissolved oxygen water quality standards in all tidal waters of the Bay.)

Sub-objective 4.3.5: Improve the Health of the Gulf of Mexico. By 2011, the overall health of coastal waters of the Gulf of Mexico will be improved from 2.4 to 2.6 on the Agood/fair/poor@ scale of the National Coastal Condition Report. (2004 Baseline: Gulf Coast rating of fair or 2.4 where the rating is based on a 5-point system where 1 is poor and 5 is good.)

Strategic Targets:

• By 2011, restore water and habitat quality to meet water quality standards in 71 impaired segments (i.e., 20% of the 354 impaired segments identified in 13 priority coastal areas). (2005 Baseline: 28 segments restored.)

• By 2011, restore, enhance, or protect 20,000 acres of important coastal and marine habitats. (2005 baseline: 16,000 acres restored, enhanced, or protected; Gulf of Mexico coastal wetland habitats include 3,769,370 acres.)

• By 2015, reduce releases of nutrients throughout the Mississippi River Basin to reduce the size of the hypoxic zone in the Gulf of Mexico to less than 5,000 km2, as measured by the 5-year running average of the size of the zone. (Baseline: 1996-2000 running average size = 14,128 km2.)

Sub-objective 4.4.6: Restore and Protect Long Island Sound: By 2011, working through the Long Island Sound Study Management Conference partnership, prevent water pollution, improve water quality, protect aquatic systems and restore the habitat of Long Island Sound as measured by the strategic targets described below.

NACEPT Comments
This sub-objective should be numbered 4.3.6.

Strategic Targets:

• By 2011, reduce point source nitrogen discharges to Long Island Sound by 10,892 tons

from the 2004 baseline as measured by the Long Island Sound Nitrogen Total Maximum Daily Load. (Annual reduction target: 1,556 tons/year. 2004 Baseline: 28,100 tons/year.)

• By 2011, reduce the size of hypoxic area in Long Island Sound (i.e., the average maximum July-September <3mg/l DO) by 25%; reduce average duration of maximum hypoxic event by 25%. (2005 Baseline: 19-year averages as of December 2005: size: 203 sq/mi.; and duration: 58 days.)

• By 2011, restore or protect 300 acres of coastal habitat, including tidal wetlands, dunes, riparian buffers, and freshwater wetlands from the 2005 baseline. (2005 Baseline: 562 acres restored and 150 acres protected; acres restored are reported to the NEP.)

• By 2011, reopen an additional 50 miles of river and stream corridor to anadromous fish passage from the 2005 baseline through removal of dams and barriers or installation of by-pass structures such as fishways. (2005 Baseline: 81 miles.)

Sub-objective 4.4.7: Restore and Protect the South Florida Ecosystem. Protect and Maintain the South Florida Ecosystem, including the Everglades and coral reef ecosystems, as measured by the strategic targets described below.

NACEPT Comments
This sub-objective should be numbered 4.3.7.

Strategic Targets:

• Annually, beginning in 2008, work with the U. S. Army Corps of Engineers and other partners to achieve Ano net loss@ of wetlands in South Florida under Section 404 of the Clean Water Act. (2005 Baseline to be determined in 2006.)

• By 2012, working with all stakeholders (federal, state, regional, and local), achieve “no net loss@ of stony coral cover (mean percent stony coral cover) as in the Florida Keys National Marine Sanctuary (FKNMS) and in the coastal waters of Dade, Broward, and Palm Beach Counties, Florida. (Baseline to be determined using information collected and analyzed in FY 2005 by the long-term coral reef monitoring projects.)

• By 2011, maintain the overall health and functionality of seagrass beds in the FKNMS each year beginning in 2008, as measured by the long-term seagrass monitoring project which addresses composition and abundance, productivity, and nutrient availability. (Baseline index of seagrass health to be determined using information collected and analyzed in FY 2005.)

• By 2011, maintain the overall water quality of the nearshore and coastal waters of the FKNMS each year, beginning in 2008. (Baseline concentrations for inorganic nitrogen (nitrate, nitrite, and ammonium), soluble reactive phosphorus, water clarity (turbidity and light attenuation), and chlorophyll *a* to be determined using information collected and analyzed in FY 2005 as measured by the long-term water quality monitoring project.)

• By 2011, maintain the water quality of the Everglades ecosystem each year, beginning in 2008, as measured through water quality monitoring of total phosphorus. (Baseline is 1995 water quality.)

Sub-objective 4.4.8: Restore and Protect Puget Sound Basin. By 2011, improve water quality, air quality, and minimize the adverse impacts of rapid development in the Puget Sound Basin as measured by the strategic targets described below.

NACEPT Comments
This sub-objective should be numbered 4.3.8.

Strategic Targets:

• By 2011, improve water quality as needed to lift harvest restrictions in 1,000 acres of shellfish bed growing areas impacted by degraded or declining water quality. (2006 Baseline: approximately 30,000 acres of shellfish beds with harvest restrictions due to water quality impairments.)

• By 2011, remediate 100 acres of prioritized contaminated sediments. (2006 Baseline: approximately 5,000 acres of remaining contaminated sediments requiring some level remediation.)

• By 2011, restore 3,500 acres of tidally and seasonally influenced estuarine wetlands. (2005 Baseline: xxx acres restored as of January 2006.)

• By 2011, reduce total diesel emissions in the Puget Sound airshed by 8% through coordinated diesel emission mitigation efforts. (2006 Baseline: xxx tons of diesel emissions to the Puget Sound airshed).

Sub-objective 4.4.9: Restore and Protect the Columbia River Basin: By 2011, prevent water pollution, improve water quality, and protect and restore Columbia River Basin ecosystems so that risks to human health and the environment can be reduced as measured by the strategic targets described below.

NACEPT Comments
This sub-objective should be numbered 4.3.9.

Strategic Targets:

• By 2011, about 5,000 acres of farmland have best management practices, no-till agriculture and/or precision agriculture actions in place resulting in XX% sediment reduction by 2011. (2004 Baseline: YY,000 acres of agricultural land which have implemented sediment reduction actions. This information will be collected by working with State and local agricultural partners.)

• By 2011, reduce toxic chemicals (PCBs, dioxins, furans, arsenic, mercury, and all forms of DDT and breakdown products) in fish tissue in 50% of the geographic areas of the

Columbia River and tributaries where fish were sampled and shown to be contaminated in the EPA 2002 Fish Contaminant Survey. (Baseline: Data on fish sampling from the EPA 2002 Fish Contaminant Survey.)

• By 2011, clean up about 400 acres (5%) of known highly contaminated sediments. (Baseline: XX acres [Approximately 8,000 acres] of highly contaminated sediments in the main-stem of the Columbia River and Lower Willamette River as of 2006.)

Objective 4.4: Enhance Science and Research. Through 2011, provide a sound scientific foundation for EPA's goal of protecting, sustaining, and restoring the health of people, communities, and ecosystems by conducting leading-edge research and developing a better understanding and characterization of environmental outcomes under Goal 4.

Sub-objective 4.4.1: Apply the Best Available Science. Through 2011, identify and synthesize the best available scientific information, models, methods and analyses to support Agency guidance and policy decisions related to the health of people, communities, and ecosystems.

Sub-objective 4.4.2: Conduct Relevant Research.
Through 2011, conduct research that contributes to the overall health of people, communities, and ecosystems. Focus research on pesticides and chemical toxicology; global change; and comprehensive, cross-cutting studies of human, community, and ecosystem health.

Strategic Targets - Human Health Research:

• Risk assessors and risk managers use ORD's methods, models and data to use mechanistic (mode of action) information to reduce uncertainty in risk assessment (metric to be established in consultation with external reviewers; measurement methodology still under development).

• Risk assessors and risk managers use ORD's methods, models and data to characterize and provide adequate protection for susceptible subpopulations; and to characterize aggregate and cumulative risk in order to manage risk of humans exposed to multiple environmental stressors (metric to be established in consultation with external reviewers; measurement methodology still under development).

• Risk assessors and risk managers use ORD's methods and models to evaluate the effectiveness of public health outcomes (metric to be established in consultation with external reviewers; measurement methodology still under development).

Strategic Targets - Ecological Research:

• States and tribes use a common monitoring design and appropriate indicators to determine the status and trends of ecological resources and the effectiveness of national

programs and policies. Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions (metric to be established in consultation with external reviewers; measurement methodology still under development).

• States, tribes and relevant EPA offices have improved their ability to determine causes of ecological degradation, and to forecast the ecological impacts of various actions through the application of recently developed (within the previous 5 years) ORD causal diagnostic tools and methods, resulting in positive environmental outcomes. Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions (metric to be established in consultation with external reviewers; measurement methodology still under development).

• States, tribes and relevant EPA offices have improved their ability to protect and restore ecological condition and services through the application of recently developed (within the previous 5 years) ORD environmental restoration tools and methods, resulting in positive environmental outcomes. Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions (metric to be established in consultation with external reviewers; measurement methodology still under development).

Strategic Targets - Global Climate Change Research:

• State, regional, and national decision makers and decision makers in EPA regional and program offices will use scientific information about the place-based impacts of global change to protect the people, the economy, and the environment of the United States by adapting to global change. Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions (metric to be established in consultation with external reviewers; measurement methodology still under development).

• Air quality managers and decision makers in EPA regional and program offices will use scientific information and models from EPA's research and assessment program to evaluate and implement adaptation policies that protect air quality from the impacts of global change. Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions (metric to be established in consultation with external reviewers; measurement methodology still under development).

• ORD will develop scientific information and decision tools that the Agency uses to inform decisions for the protection of human health, water quality, and aquatic ecosystems by adapting to global change. Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions (metric to be established in consultation with external reviewers; measurement methodology still under development).

Strategic Targets - Endocrine Disruptors Research:

• Reduction in uncertainty regarding the effects, exposure, assessment, and management of endocrine disruptors so that EPA has a sound scientific foundation for environmental decision-making. Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions (metric to be established in consultation with external reviewers; measurement methodology still under development).

• Determination of the extent of the impact of endocrine disruptors on humans, wildlife, and the environment to better inform the federal and scientific communities. Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions (metric to be established in consultation with external reviewers; measurement methodology still under development).

• OPPTS uses endocrine disruptor screening and testing assays developed by ORD to create validated methods that evaluate the potential for chemicals to cause endocrine-mediated effects in order to reduce or prevent risks to humans and wildlife from exposure to endocrine disrupting chemicals (EDCs). Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions (metric to be established in consultation with external reviewers; measurement methodology still under development).

Strategic Targets - Human Health Risk Assessment Research:

• Integrated Risk Information System (IRIS) and other priority health hazard assessments: Agency, state and local risk assessors use the state-of-the-science health hazard assessment information provided on priority substances in their decisions and actions to protect human health from risks posed by environmental pollutants. Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions (metric to be established in consultation with external reviewers; measurement methodology still under development).

• State-of-the-science risk assessment models, methods, and guidance: EPA programs, states and other risk assessors use the risk assessment models, methods, and guidance provided to enhance, through the incorporation of contemporary scientific advances, the quality and objectivity of their assessments and decision-making on environmental health risks. Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions (metric to be established in consultation with external reviewers; measurement methodology still under development).

• Air Quality Criteria Documents: As mandated in the Clean Air Act, the ambient air criteria pollutants are reviewed and AQCDs revised to reflect the best available scientific information on identifiable effects on public health and the environment from exposure to the pollutant, and this information is used by the EPA Office of Air and Radiation in their

review and promulgation of the National Ambient Air Quality Standards (NAAQSs) to protect public health with an adequate margin of safety. Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions (metric to be established in consultation with external reviewers; measurement methodology still under development).

Strategic Targets - Computational Toxicology Research:

• Risk assessors will use improved methods and tools to better understand and describe the linkages of the source to outcome paradigm. Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions (metric to be established in consultation with external reviewers; measurement methodology still under development).

• Regulators and risk assessors will use advanced hazard characterization tools to prioritize and screen chemicals for toxicological evaluation. Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions (metric to be established in consultation with external reviewers; measurement methodology still under development).

• Assessors and regulators will use new and improved methods and models based on the latest science for enhanced dose-response assessment and quantitative risk assessment. Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions (metric to be established in consultation with external reviewers; measurement methodology still under development).

Strategic Targets - Mercury Research:

• ORD will advance the research to reduce and prevent release of mercury into the environment. Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions (metric to be established in consultation with external reviewers; measurement methodology still under development).

• ORD will conduct research to understand the transport and fate of mercury from release to the receptor and its effects on the receptor. Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions (metric to be established in consultation with external reviewers; measurement methodology still under development).

Strategic Targets - Homeland Security Research:

• ORD will provide tools including new or refined advisory levels for various contaminants of concern, improved risk assessment methods and communication tools, and support to emergency and follow-up responders, enabling rapid evaluation of chemical, biological, and radiological risks associated with a terrorist threat or attack.

Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions (metric to be established in consultation with external reviewers; measurement methodology still under development).

• ORD will develop data, methods, and technologies that the Agency uses to inform decisions by water utilities and their support organizations, public health officials, and the emergency and follow-up response community to identify vulnerabilities, detect contamination, warn the public, and respond effectively in the event of a biological, chemical, or radiological attack on any of the nation's water infrastructure. Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions (metric to be established in consultation with external reviewers; measurement methodology still under development).

• ORD will provide tools, protocols and methods to the emergency and follow-up response community, elected and appointed officials, and the general public for locating, collecting, and analyzing environmental samples; protecting decontamination personnel, the general public, and the environment; and the decontamination and disposal of materials in the event of a biological, chemical, or radiological attack inside and outside of buildings. Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions (metric to be established in consultation with external reviewers; measurement methodology still under development).

Strategic Targets - Safe Pesticides and Products:

• OPPTS uses the results of ORD's research as the scientific foundation for prioritization of testing requirements and enhanced interpretation of exposure, hazard identification and dose-response information. Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions (metric to be established in consultation with external reviewers; measurement methodology still under development).

• OPPTS uses the results of ORD's research as the scientific foundation for probabilistic risk assessments to protect natural populations of birds, fish and other wildlife. Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions (metric to be established in consultation with external reviewers; measurement methodology still under development).

• OPPTS uses the results of ORD's research as the scientific foundation for preventing or reducing risks to human environments within communities, homes, workplaces, and evaluating novel or newly discovered environmental hazards. Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions (metric to be established in consultation with external reviewers; measurement methodology still under development).

GOAL 5: Compliance & Environmental Stewardship.

Improve environmental performance through compliance with environmental requirements, preventing pollution, and promoting environmental stewardship. Protect human health and the environment by encouraging innovation and providing incentives for governments, businesses, and the public that promote environmental stewardship and long term sustainable outcomes.

Objective 5.1: Achieve Environmental Protection Through Improved Compliance. By 2011 maximize compliance to protect human health and the environment through compliance assurance activities by achieving a 5% increase in the pounds of pollution reduced, treated, or eliminated. (Baseline to be determined for 2006.)

> *Note to Reviewers: OECA will be developing statistically-valid compliance rates for key populations associated with the national priorities of EPA's enforcement and compliance program. In addition, as part of a larger review of its performance measures, OECA will be consulting with a broad array of co-regulators, compliance programs, and academic experts to learn more about statistically-valid compliance rate methodologies that might be appropriate to apply to EPA's enforcement and compliance program. We would appreciate your comments on this matter as you review the draft architecture.*

NACEPT Comments

Why 5%? How many pounds does this represent? What is the difference between a pound of pollution reduced and a pound eliminated? What is achieved by "treating" pollution, and shouldn't this objective place priority on elimination over treatment? What types of compliance assurance activities are covered in this objective? The word "by" is confusing: does the 5% increase in pounds of pollution reduced, treated, or eliminated lead to improved compliance, or does improved compliance lead to the 5% improvement? If we assume EPA means the latter, the objective might be reworded as follows: "By 2011, achieve a 5% reduction in the pounds of pollution released by regulated entities through compliance assurance activities such as…"

Sub-objective 5.1.1: Compliance Assistance. By 2011, prevent noncompliance or reduce environmental risks through EPA compliance assistance by maintaining or improving on the following percentage: 85% of regulated entities improve their understanding of environmental requirements; 50% of regulated entities improve environmental management practices; and 12% of regulated entities that reduce, treat, or eliminate pollution. (Baseline to be determined for 2006.)

NACEPT Comments

This sub-objective is particularly difficult to understand. In the first phrase, the word "or" should be changed to "and." The sub-objective should state BOTH the number of regulated entities that will improve their practices as well as the percentages. The sub-objective is ambiguous with respect to whether performance improvement is a goal – it states that the agency will "maintain" or "improve." Shouldn't improvement be expected? What is the basis for the percentage goals, and why is only 12% of the regulated population expected to "reduce, treat, or eliminate pollution"? Will EPA target specific sectors, or does it expect to achieve improvements across the board?

Sub-objective 5.1.2: Compliance Incentives. By 2011, identify and correct noncompliance and reduce environmental risks through a 5 percentage point increase in the number of facilities that use EPA incentive policies to conduct environmental audits or other actions that reduce, treat, or eliminate pollution or improve environmental management practices. (Baseline to be determined for 2006.)

NACEPT Comments

The number of facilities that currently access incentive policies should be provided. Each sub-objective should include the absolute number of regulated entities affected as well as percentages. Shouldn't the objective be to increase the number of facilities that conduct environmental audits, prevent pollution, and improve environmental management practices, whether or not they utilize EPA incentive policies? In other words, we question whether the use of incentives policies should be an objective at all.

Sub-objective 5.1.3: Monitoring and Enforcement. By 2011, identify, correct, and deter noncompliance and reduce environmental risks through monitoring and enforcement by achieving: a 5% increase in the number of facilities taking complying actions during EPA inspections after potential deficiencies have been identified; a 5 percentage point increase in the percent of enforcement actions requiring that pollutants be reduced, treated, or eliminated; and a 5 percentage point increase in the percent of enforcement actions requiring improvement of environmental management practices. (Baseline to be determined for 2006.)

NACEPT Comments

Each sub-objective should include the absolute number of regulated entities affected as well as percentages. What does it mean to take "complying actions *during* EPA inspections?" What would such complying actions entail?

We find it difficult to comment on this sub-objective without baseline information. This sub-objective appears to address three distinct environmental improvement strategies: complying actions during an inspection; reducing, treating, or eliminating pollution; and improvement in environmental management practices. Are we to assume that each of these strategies carries equal weight for the agency, since EPA is striving to increase the use of each by 5 percentage points over the next 5 years? While the first measurable is based on action by the regulated community (increase in the number of facilities decisively responding to non-compliance identified during EPA inspections, albeit only 5%), the second and third measurables relate only to behavior change within EPA by inclusion of particular tools in EPA enforcement actions (inputs) and not to behavior change (actions) *in the regulated community* (outcomes). Since the vast majority of enforcement actions are initiated at the state and local levels through enforcement program delegation, are these measurables applicable to state and local enforcement actions as well, or limited only to actions initiated by EPA?

An example would be helpful here.

Objective 5.2: Improve Environmental Performance through Pollution Prevention and the Adoption of other Stewardship Practices that Lead to Sustainable Outcomes. By 2011, enhance public health and environmental protection and increase conservation of natural resources by promoting pollution prevention and the adoption of

other stewardship practices by companies, communities, governmental organizations, and individuals.

Sub-objective 5.2.1: Prevent Pollution and Promote Environmental Stewardship by Business, Government and the Public. By 2011, reduce pollution, conserve natural resources, and improve other environmental stewardship practices through implementation of EPA's pollution prevention programs.

Strategic Targets:

• By 2011, reduce 10.5 billion pounds of hazardous materials cumulatively from the 2005 baseline.

NACEPT Comments
Who is to do this, and through what means? What is the baseline, and what percentage reduction does the target represent? [Same comment applies to 6 bulleted points below.]

• By 2011, reduce 1.5 billion pounds of non-hazardous materials cumulatively from the 2005 baseline.

• By 2011, reduce, conserve or offset 4 million megawatts of energy use cumulatively from the 2005 baseline.

• By 2011, reduce, conserve or offset 1 quadrillion BTUs of energy use cumulatively from the 2005 baseline.

• By 2011, reduce water use by 73 billion gallons cumulatively from the 2005 baseline.

• By 2011, reduce $1.1 billion business, institutional and government costs by x dollars cumulatively from the 2005 baseline.

• By 2011, achieve a XXX pound (10% of baseline) overall reduction of priority chemicals in waste using 2004 as a baseline year.

Sub-objective 5.2.2: Promote Improved Environmental Performance through Business and Community Innovation. Through 2011, achieve measurably improved environmental performance to achieve sustainable outcomes through sector-based approaches, performance-based programs, and assistance to small business.

Strategic Targets:

• By FY 2011, Performance Track members collectively will achieve the following normalized annual reductions: XXX gallons in water use; XXX tons of hazardous materials use; XXX Metric Tons of Carbon Dioxide Equivalent (MTCO2E) of greenhouse gases; XXX tons of toxic discharges to water; and XXX tons of combined

NO_x and SO_x emissions. (In FY 2005, Performance Track members achieved normalized annual reductions of 3,387,333,545 gallons in water use; 8,794 tons of hazardous materials use; 151,129 MTCO2E of greenhouse gases; 186 tons of toxic discharges to water; and 3,188 tons of combined NO_x and SO_x emissions.)

NACEPT Comments

While it is difficult to comment on Performance Track targets since they are not given, how do the reductions noted for the previous year compare to reductions of facilities that do not participate in the program? How they compare to water use, hazardous material use, and discharges of greenhouse gases, toxics, and NOx and SOx from industry generally? Are these significant or inconsequential reductions?

• By 2011, the participating manufacturing and service sectors in the Sector Strategies Program will achieve an aggregate 10% reduction in environmental releases to air, water, and land, working from a 2004 baseline and normalized to reflect economic growth. (Baseline and normalization factors to be developed in 2006.)

NACEPT Comments

Are these gross emissions or production-normalized? How does a 10% reduction compare to reductions from sectors that do not participate in the program? Are reductions achieved through non-Sector Strategies Program actions (e.g., enforcement, compliance assistance, incentives) included or excluded as measures of Sector Strategies Program performance here?

Sub-Objective 5.2.3: Promote Environmental Policy Innovation. By 2011, achieve measurably improved environmental results, promote stewardship behavior, and advance sustainable outcomes by testing, evaluating, and applying alternative approaches to environmental protection in states, companies, and communities. This work also will seek to improve the organizational cost effectiveness and efficiency for regulatory agencies as well as regulated entities.

Strategic Targets:

• By 2011, innovation projects under the State Innovation Grant Program and other piloting mechanisms will achieve, on average, a 7.5 % or greater improvement in environmental results (such as air or water quality), compliance rates, and/or a 5% or greater improvement in cost effectiveness and efficiency. (Note: Baselines will be developed based on 2001-2005 innovation program activities.)

NACEPT Comments

Why 7.5%? This is a very specific target. 7.5% compared to what? "Traditional" environmental regulation? How will this be measured?

Objective 5.3: Build Tribal Capacity to Improve Human Health and the Environment in Indian Country. Protect human health and the environment on tribal lands by assisting Federally-recognized tribes to: build environmental management

capacity; assess environmental conditions and measure results; and implement environmental programs in Indian country.

Strategic Targets:

• By 2011, increase the percent of tribes with an environmental program to 67%. (FY 2005 Baseline: 54% of Tribes; Universe: 572 tribes.)

NACEPT Comments
Would any environmental program satisfy this requirement? Shouldn't the agency specify minimal requirements?

• By 2011, increase the percent of tribes implementing federal environmental programs in Indian country to 9%. (FY 2005 Baseline: 5% of Tribes; Universe: 572 tribes.)

NACEPT Comments
This should be compared to the previous target. If only 5% of tribes implement any federal environmental programs, then 49% of tribes have environmental programs that are not equivalent to federal programs. A goal of increasing the number of federal programs to 9% seems quite conservative.

• By 2011, increase the percent of tribes conducting EPA-approved environmental monitoring and assessment activities in Indian country to 26%. (FY 2005 Baseline: 20% of Tribes; Universe: 572 tribes.)

Objective 5.4: Enhance Society's Capacity for Sustainability through Science and Research. Conduct leading-edge, sound scientific research on pollution prevention, new technology development, socioeconomic, sustainable systems, and decision-making tools. By 2011, the products of this research will be independently recognized as providing critical and key evidence in informing Agency polices and decisions and solving problems for the Agency and its partners and stakeholders. (Also see *Research*, under Cross Agency and Support-Program Evaluations in Appendix of this *Strategic Plan.*)

NACEPT Comments
Can EPA provide any guidance about the level of priority it will place on these different research areas? Since outcomes are difficult to measure in this area, some information about outputs would be helpful. For example, how many RFPs does EPA expect to issue for each sub-objective?

Sub-objective 5.4.1: Strengthening Science. The research and educational community, the regulated community and decision and policy makers use ORD products and services to enhance the scientific and technology base and catalyze innovation of alternative processes, tools, technologies and systems for advanced environmental protection; implement more efficient and sustainable practices, materials and technologies in improved environmental performance; implement improved and scientifically sound management decisions and policies and practices for sustainable resource management.

Sub-objective 5.4.2: Conducting Research Through 2011, conduct leading-edge, sound scientific research on pollution prevention, new technology development, socioeconomic, sustainable systems, and decision-making tools. The products of this research will provide critical and key evidence in informing Agency polices and decisions affecting the Agency programs in Goal 5, as well EPA partners and stakeholders.

Strategic Targets – Sustainability and Pollution Prevention:

• The research and educational community apply ORD research results, products and services to enhance the scientific and technology base and catalyze innovation of alternative processes, tools, technologies and systems for advanced environmental protection. Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions *(metric to be established in consultation with external reviewers; measurement methodology still under development).*

NACEPT Comments
What is the timetable for developing these metrics and measurement methodologies?

• The regulated community applies ORD research products and services to implement more efficient and sustainable practices, materials and technologies in improved environmental performance. Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions *(metric to be established in consultation with external reviewers; measurement methodology still under development*).

• Decision and policy makers use ORD products and services to implement improved and scientifically sound management decisions and policies and practices for sustainable resource management. Success is defined by an external expert review process to measure the utility of the data, tools, and technologies for key Agency decisions *(metric to be established in consultation with external reviewers; measurement methodology still under development).*

Strategic Targets - Economics and Decision Sciences:

• Through 2011 identify and reduce uncertainties and potential biases associated with benefit transfer methods, and provide these methods and estimated values from original studies for ecological and human health benefits analysis for use in Regulatory Impact Analyses and similar documents by EPA's program offices, states, regions, and other bodies. Success is defined by an external expert review process to measure the utility of the data, tools, and methods for key Agency decisions *(metric to be established in consultation with external reviewers; measurement methodology still under development).*

• Through 2011 make progress in improving the understanding of decision-making with respect to compliance behavior and environmental performance in response to interventions, including government enforcement, information disclosure, voluntary initiatives, and similar programs, to support the design of policies using these interventions. Success is defined by an external expert review process to measure the utility of the data, tools, and methods for key Agency decisions *(metric to be established in consultation with external reviewers; measurement methodology still under development*).

• Through 2011 make progress in identifying regulated entities' responses to market mechanisms and incentives and investigating how market-based programs can be designed to improve environmental quality at the lowest cost, to support the design of policies using market mechanisms and incentives for environmental management. Success is defined by an external expert review process to measure the utility of the data, tools, and methods for key Agency decisions *(metric to be established in consultation with external reviewers; measurement methodology still under development).*